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NEW SPECIES OF *PARTULA* FROM THE NEW HEBRIDES AND SOLOMON ISLANDS.

BY W. D. HARTMAN, M. D.

The new species of *Partula* herein described, are almost all of one type. The shells of most species from the Solomon Islands are thin, and more or less translucent, with numerous waved spiral striæ, a compressed umbilicus, a moderately reflected and concave lip, and (when viewed through a glass) the embryonic whorls of the apex are rounded or dome-shaped. Like other *Partulæ*, individuals of the different species are often variable, especially in the greater or less obliquity of the aperture. These thin shells possess so many features in common, that it is often difficult, in the absence of illustrations, to frame a diagnosis sufficiently distinctive to enable the reader to recognize a species from the description alone. I have embraced the present opportunity to figure a few species not heretofore delineated, amongst which is the lost species, *P. rufa*, Lesson.

This shell has been found on the banks of the Lella River, Chabroul Harbor, Uhalan or Strong's Island, by Capt. Brazier, C. M. Z. S. I have seen three examples. It is very distinct from *P. Guamensis*, Pfr., with which it has been confounded; the latter is an arboreal species from Ponape, one of the Caroline group. *P. rufa*, Less., is a much smaller species than *P. Guamensis*, Pfr., which it resembles in color, contour and texture. Farther explorations in the New Hebrides and Solomon Islands will doubtless reveal many new species of *Partula*.

*P. similaris*, nobis. Plate II, fig. 1.

Shell dextral, oblong ovate, thin and translucent; whorls 5, convex, spire half the length, oblique lines fine and decussated by coarse spiral striæ, umbilicus compressed; aperture rounded ovate; lip white, color yellowish white, with the apex very pale rose. Length 17 mill., diameter 9 mill.; length of aperture 6 mill., diameter 4 mill.

*Hab.*—Woodlark Island, near New Guinea (Capt. Brazier).

*Obs.*—For size and contour this shell is near *P. Carteriensis*, Pfr.; it is thinner and less solid, with a more rounded aperture, and concave lip.

*P. perlucens*, nobis. Plate II, fig. 2.

Shell dextral, oblong, ovate, very thin and pellucid; whorls 5, well rounded, body-whorl somewhat inflated, spire more than half the length. Suture well impressed, spiral striæ numerous and fine, umbilicus compressed, aperture oblique, round oval, lip white, concave and moderately reflected. Color a very pale green. Length 18 mill., diameter 9 mill.; length of aperture 9 mill., diameter 4 mill.

*Hab.*—*Uji* or *Golfe Island*, *Solomon Islands* (Arboreal).

*Obs.*—Compared with *P. similaris*, herein described, it is a larger, thinner and more inflated shell. Capt. Brazier sent me two examples, the smaller measured: length 14 mill., diameter 8 mill.

*P. incurvum*, nobis. Plate II, fig. 3.

Shell dextral, ovate, elongate, thin and translucent, spire slender, elongate, more than half the length; whorls 5, rounded, suture impressed, spiral striæ numerous, subperforate, with the umbilicus slightly compressed, columella slightly nodose. Aperture ovate, very oblique, lip white, moderately reflected and concave. Color yellowish white. Length 18 mill., diameter, 8 mill.; length of aperture 7 mill., diameter 4 mill. Arboreal.

*Hab.*—*Rubiana Island*, *Solomon Islands* (Capt. Brazier).

*Obs.*—This is a distinct species, with a very oblique aperture, giving the shell a bent appearance at the middle.

*P. regularis*, nobis. Plate II, fig. 4.

Shell dextral, ovate elongate, thin and translucent; spire half the length; whorls 5, rounded, suture impressed, spiral striæ numerous, waved and very fine, umbilicus compressed, aperture direct, lip white, concave and slightly expanded, margins of the peritreme connected by a very thin callus. Color yellowish white. Length 17 mill., diameter 8 mill.; length of aperture 8.5 mill., diameter 5 mill. Arboreal.

*Hab.*—*Savu*, *Galeria Island*, *Solomon Islands* (Capt. Brazier).

*P. minor*, nobis. Plate II, fig. 5.

Shell ovate, somewhat oblong, thin and feebly translucent, spire as long as the aperture; whorls 5, slightly rounded, suture impressed, oblique striæ coarse, spiral striæ obsolete; umbilicus compressed, lip white, flat and moderately reflected, aperture direct, margins of the peritreme connected by a stout callus.

Color a soiled white, apex rufous. Length 16 mill., diameter 8 mill.; length of aperture 6 mill., diameter  $3\frac{1}{2}$  mill.

*Hab.*—*Erromango Island, Solomon Islands.*

*Obs.*—I possess two examples of this species from Dr. Cox, of Sydney, Australia. They were collected by Dr. Turner at the above island; it differs from *Carteriensis* especially in the margins of the peritreme approximating more closely than in that species.

*P. corneola*, nobis. Plate II, fig. 6.

Shell dextral, ovate conic, smooth and polished, corneous, translucent; whorls 5, slightly rounded, spire half the length, spiral striæ numerous, waved and very fine, umbilicus compressed, aperture ovate, with a rounded pillar tooth, and a small tubercle on the columella, lip thick, white, and almost flat, with the margins connected by a callus. Color pale horn, with the apex pale rufous. Length  $17\frac{1}{2}$  mill., diameter 9 mill.; length of aperture 7 mill., diameter 4 mill. Smaller example: Length, 16 mill.; diameter, 8 mill.

*Hab.*—*Eimeo, Morea?* (Mr. Geale).

*Obs.*—Several years ago I obtained two examples from Mr. Geale, who accompanied Hugh Cuming. This shell is not found in the British Museum, or the Jardin des Plantes, and I have only met with it twice in private collections. It differs from all the Marquesas species with which I am acquainted, and it possesses the dome-like apex of the Solomon Island group.

*P. Coxi*, Angas MS. Plate II, fig. 7.

Shell dextral ovate, slightly elongate, thin and translucent; whorls 5, rounded, suture impressed, oblique lines of growth fine, and sparsely decussated by waved spiral striæ; aperture ovate, direct, umbilicus compressed, lip reflected, white and concave, color yellowish white; apex slightly rufous. Length 15 mill., diameter 7 mill.; length of aperture 5 mill., diameter 3 mill.

*Hab.*—*Ysabel Island, Solomon Islands* (Capt. Brazier).

*Obs.*—This shell was collected at the above locality by Captain Brazier, and he has kindly given me a number of examples. In 1867, Dr. Cox sent me examples of *P. pellucida*, Pse., for *Coxi*. These were pronounced *micans*, Pfr., at the British Museum, causing the error in my Bibliographical Catalogue. *P. micans* is a much larger shell.

According to the observations of Capt. Brazier, *P. pellucida* and *P. Cori* are arboreal species. My examples were pronounced *Cori* by Mr. Angas; it is a larger shell than *P. pellucida*.

**P. Woodlarkiana**, nobis. Plate II, fig. 8.

Shell dextral, ovate, thin and translucent; body-whorl inflated; whorls 5, rounded, suture impressed, lines of growth decussated by numerous waved spiral striæ, spire short, columella slightly arcuate, wide and smooth, compressly umbilicate, aperture round ovate, lip concave, white and moderately reflected; color yellowish, apex very pale rose. Length 19 mill., diameter 11 mill.; length of aperture 9 mill., diameter 6 mill.

*Hab.*—Woodlark Island near New Guinea (Capt. Brazier).

**P. hastula**, nobis. Plate II, fig. 9.

Shell dextral, elongate, oval, hastulate, thin and pellucid; spire acute, half the length; whorls 5, slightly rounded, suture moderately impressed. Oblique striæ prominent, and crossed by numerous minute spiral lines. Umbilicus compressed, aperture oval, more or less oblique, margins of the peritreme connected by a very thin deposit, lip white, reflected and concave. Color yellowish. Length 19 mill., diameter 9 mill.; length of aperture 8 mill., diameter 4 mill.

*Hab.*—Erromango Island, Solomon Islands.

*Obs.*—I am indebted to Captain Brazier for several examples. He informs me that Mr. Pease considered it identical with *P. spadicea*, Rve., from which it is certainly distinct; it is more elongate and thinner than any known species from this island.

**P. eburnea**, nobis. Plate II, fig. 10.

Shell dextral, ovate, very elongate, solid. Spire half the length; whorls  $5\frac{1}{2}$ , oblique striæ coarse, spiral striæ obsolete, aperture a wide oval, more or less oblique; umbilicus compressed. Columella wide above, lip reflected, white and flat, margins of the peritreme connected by callus. Color ivory-white. In fresh examples sometimes the whole shell is tinged with pale rose. Length 26 mill., diameter 13 mill.; length of aperture 11 mill., diameter 6 mill. *Hab. unknown.*

*Obs.*—Captain Brazier sent me two examples of this shell, given him by a friend; it is larger and more solid than *Pfeifferi*, Crosse.

**P. proxima**, nobis. Plate II, fig. 11.

Shell dextral, thin, ovate, very elongate, spire half the length; whorls  $5\frac{1}{2}$ , surface smooth, oblique lines of growth fine; spiral striæ obsolete, aperture ovate, oblique, umbilicus compressed; columella wide above, and slightly nodose, lip white and slightly concave, margins of the peritreme connected by a thin callus; color white. Length 23, width 10; length of aperture 12, width 6 mill.

*Hab.*—*Vanna Levu Island, Banks Islands, near the New Hebrides.*

*Obs.*—Capt. Brazier sent me two examples (weatherbeaten) collected at the above island by himself in 1865; it has the outline of *eburnea*, nobis, but is a smaller, thinner and more slender shell.

† **P. pyramis** nobis. Plate II, fig. 12.

Shell dextral, solid, perforate, spire elongate, acute, longer than the aperture; whorls  $5\frac{1}{2}$ , rounded, suture well impressed, surface smooth, obliquely striate, fine spiral striæ almost obsolete, aperture a wide oval, slightly oblique, lip white, moderately reflected and flat, margins of the peritreme connected by a thin deposit; color pale yellow. Length 25, width 13; length of aperture 10, width  $5\frac{1}{2}$  mill.

*Hab.*—*Vate, Efate, or Sandwich Island, New Hebrides.*

*Obs.*—I have three examples from Mr. Layard and Captain Brazier. They are the size of *Macgillivrayi*, from Tanna, but the spire is more elongate and acute, the whorls more rounded, the sutures are deeper, and they want the dark band at the periphery of that species.

**P. Newcombianum**, nobis. Plate II, fig. 13.

Shell dextral, ovate, rather thin; spire acute, half the length; whorls 5, rounded; suture deeply impressed; body-whorl somewhat inflated; oblique lines of growth fine and crossed by numerous waved spiral striæ, compressly umbilicate; aperture very oblique, rounded, ovate; lip white, moderately reflected and concave; the outer margin partaking of the color of the epidermis; columella wide above; margins of the peritreme connected by a thin vitreous deposit; a broad, flat, pillar tooth far within the aperture. Color light fawn, with dark brown oblique striæ, apex dark brown. Length 17 mill., diameter 11.5 mill.; aperture, length 7 mill., width 4 mill.

*Hab.*—Island of Salisbaboe, one of the Falow Islands, between Gilolo and Mindanao.

*Obs.*—I received this shell from Mr. Layard, through Mr. A. Garrett; in outline and general appearance it resembles some varieties of *P. varia*. I have named it in honor of Dr. Wesley Newcomb, one of our oldest American conchologists, well known for his writings on the allied genus *Achatinella* of the Sandwich Islands.

*P. eximia*, nobis. Plate II, fig. 14.

Shell dextral, ovate, elongate, solid; spire elongate, half the length; body-whorl large, sutures well impressed; whorls rounded, oblique lines fine, and decussated by almost obsolete spiral striæ; umbilicus slightly compressed; aperture direct, oval; lip white, moderately reflected and flat; columella wide above; margins of the peritreme connected by a thin deposit. Color of the epidermis a soiled pale green, when separated leaving the shell white. Length 23 mill., width 11 mill.; length of aperture 11 mill., width 5 mill.

*Hab.*—Aneiteum Island, New Hebrides.

*Obs.*—I received one example of this fine species from Mr. Layard, through Mr. Jno. H. Thomson.

*Partula rufa*, Less. Plate II, fig. 15.

*Partula concinna*, Pease. Plate II, fig. 16.

*Partula pellucida*, Pse. Plate II, fig. 17.

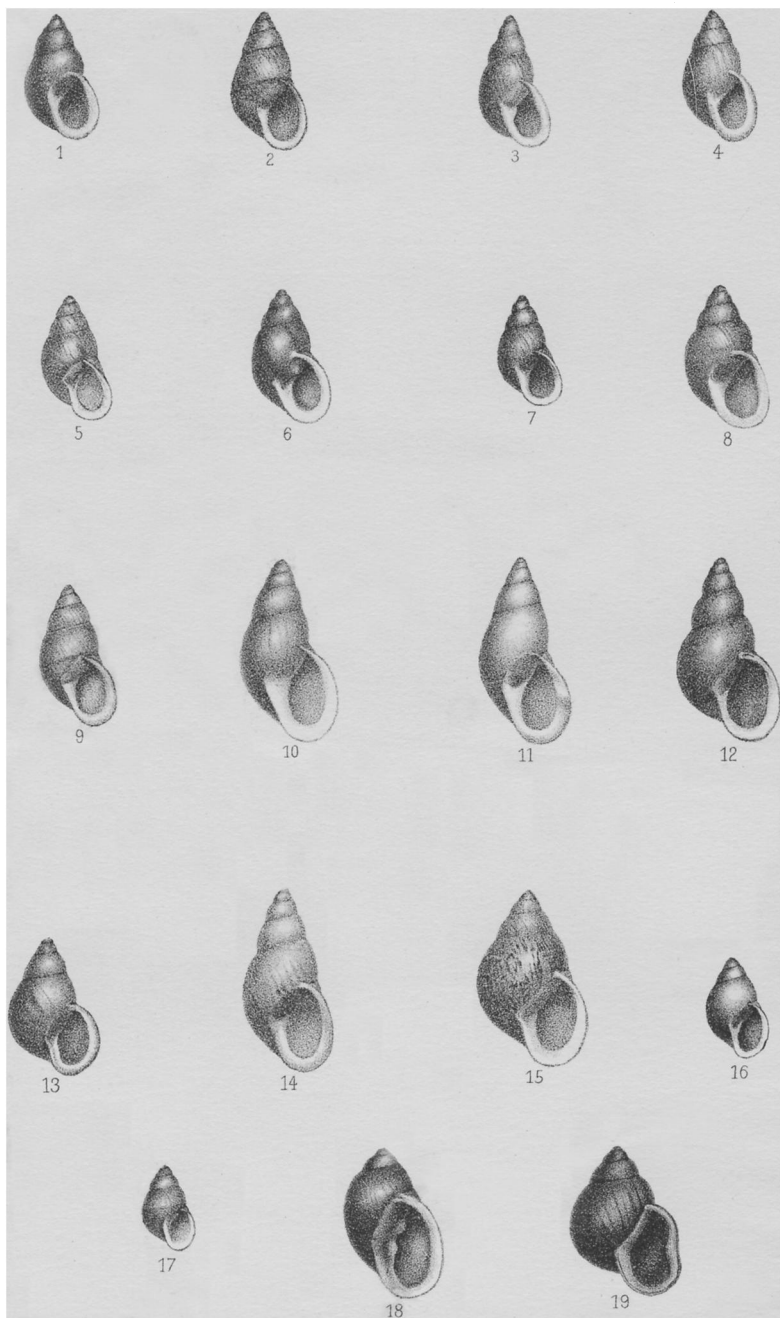
*Partula Layardii*, Braz. Plate II, fig. 18.

*Partula (Diplomorpha) De la Touri*, nobis, Plate II, fig. 19.

Shell dextral, solid, short conic; whorls  $4\frac{1}{2}$ , rounded, suture deep, body-whorl inflated, almost two-thirds the length, surface with coarse oblique striæ, umbilicus wide, aperture perpendicular, lip white, moderately reflected and revolute, the external margin slightly indented, encroaching on the aperture; color of the epidermis light brown, color of the aperture dark orange. Length 20, diameter 14; length of aperture 12, diameter 8 mill.

*Hab.*—Aura Island, in the Malo Pass, Santo Espirito Group.

*Obs.*—This shell has recently been discovered by Mons. De la Tour, an enthusiastic young naturalist, who writes that this little island teems with molluscan life. But one other species is known; *P. (Diplomorpha) Layardii*, Brazier, herein figured. It is found at Vate or Sandwich Island, New Hebrides. The habits of the animals are terrestrial.



Hartman on New Species of Partula.